In the Claims

1. (Currently amended) A programmable temperature control apparatus for the control of temperature in communication with a temperature-modifying device and an air circulating system, said programmable temperature control apparatus comprising:

a controller programmed to control a thermal output of said temperature-modifying device to achieve a desired temperature, and to operate said air circulating system independently of said temperature-modifying device such that air circulates through the system at selected intervals sufficient to prevent buildup and growth of allergens within the system.

2. (Original) The apparatus of Claim 1, further comprising a user-operable input connected for entering air handling information to program said air circulating system to operate at predetermined intervals.

3. (Original) The apparatus of Claim 2, wherein said air handling information comprises one or more selected from the group consisting of operating periods and ON time during said operating periods.

4. (Original) The apparatus of Claim 3, wherein said ON time may be set between 9 and 60 minutes.

5. (Original) The apparatus of Claim 4, wherein said ON time may be set in increments of 3 minutes.

6. (Original) The apparatus of Claim 1, further comprising a user-operable input connected for entering air filtration information used by said controller to generate air filtration output information and a display for displaying said air filtration output information during said control of said thermal output of said temperature-modifying device.

7. (Original) The apparatus of Claim 6, wherein said air filtration control information comprises a air filter usage period that is one or more selected from the group consisting of 0 days, 30 days, 60 days, 90 days, and 120 days.

8. (Original) The apparatus of Claim 6, wherein said air filtration output information comprises one or more selected from the group consisting of how much time remains in said air filter usage period, what percentage of said air filter usage period remains, and whether said air filter should be checked.

9. (Original) The apparatus of Claim 8, wherein said time is represented in days.

10. (Original) The apparatus of Claim 8, wherein said percentage is represented using a bar indicator.

11. (Original) The apparatus of Claim 6, wherein said air filtration output information is calculated using a formula based upon user-inputted filter information and operation of said air circulating system.

12. (Original) The apparatus of Claim 1, further comprising at least one sensor for sensing at least one characteristic of said air circulating system and communicating said characteristic information based thereon to said controller; and wherein said controller is further programmed to generate air filtration output information using said characteristic information and a display for displaying said air filtration output information during said control of said thermal output of said temperature-modifying device.

13. (Original) The apparatus of Claim 12, wherein said characteristic of said air circulating system comprises one or more selected from the group consisting of air pressure, air flow, air heat loss, fan usage, fan current draw, and fan power usage.

14. (Original) The apparatus of Claim 12, wherein said sensor includes a reset button for resetting said characteristic information.

15. (Previously presented) The apparatus of Claim 12, wherein said sensor is located proximate said filter.

16. (Original) The apparatus of Claim 12, wherein said sensor communicates with said controller using one or more selected from the group consisting of radio frequency communication, infrared communication, low voltage cabling, and household power lines.

17. (Original) The apparatus of Claim 12, wherein said sensor is configured to determine at least a portion of said air filtration output information from said characteristic of said air circulating system.

18-48. (Cancelled)

49. (Currently amended) A method of operating an air circulating system in communication with a programmable temperature control system, said method comprising the step of ~~using~~causing a controller programmed to control a thermal output of a temperature-modifying device to achieve a desired temperature and to independently operate said air circulating system under programmed operation such that air circulates through the system at selected intervals sufficient to prevent buildup and growth of allergens within the system.

50-51. (Cancelled)

52. (Currently amended) A temperature control apparatus for the control of temperature in communication with a temperature-modifying device and an air circulating system, said temperature control apparatus comprising:

a controller to control a thermal output of said temperature-modifying device to achieve a desired temperature, and to operate said air circulating system independently of said temperature-modifying device such that air circulates through the system at selected intervals sufficient to prevent buildup and growth of allergens within the system.

53. (Previously presented) The apparatus of Claim 52, further comprising a user-operable input connected for entering air handling information to program said air circulating system to operate at predetermined intervals.

54. (Previously presented) The apparatus of Claim 52, further comprising a user-operable input connected for entering air filtration information used by said controller to generate air filtration output information and a display for displaying said air filtration output information during said control of said thermal output of said temperature-modifying device.

55. (Previously presented) The apparatus of Claim 54, wherein said air filtration output information comprises one or more selected from the group consisting of how much time remains in said air filter usage period, what percentage of said air filter usage period remains, and whether said air filter should be checked.

56. (Previously presented) The apparatus of Claim 54, wherein said air filtration output information is calculated using a formula based upon user-inputted filter information and operation of said air circulating system.

57. (Previously presented) The apparatus of Claim 52, further comprising at least one sensor for sensing at least one characteristic of said air circulating system and communicating said characteristic information based thereon to said controller; and wherein said controller is further

programmed to generate air filtration output information using said characteristic information and a display for displaying said air filtration output information during said control of said thermal output of said temperature-modifying device.

58. (Previously presented) The apparatus of Claim 57, wherein said characteristic of said air circulating system comprises one or more selected from the group consisting of air pressure, air flow, air heat loss, fan usage, fan current draw, and fan power usage.

59-65. (Cancelled)

66. (Previously presented) The apparatus of Claim 15, wherein said characteristic of said air circulating system comprises one or more selected from the group consisting of air pressure, air flow, air heat loss, fan usage, fan current draw, and fan power usage.

67-70. (Cancelled)

71. (Currently amended) A method of operating an air circulating system in communication with a temperature control system, said method comprising the step of ~~using~~causing a controller to control a thermal output of a temperature-modifying device to achieve a desired temperature and to independently operate said air circulating system under programmed operation such that air circulates through the system at selected intervals sufficient to prevent buildup and growth of allergens within the system.

72-73. (Cancelled)